



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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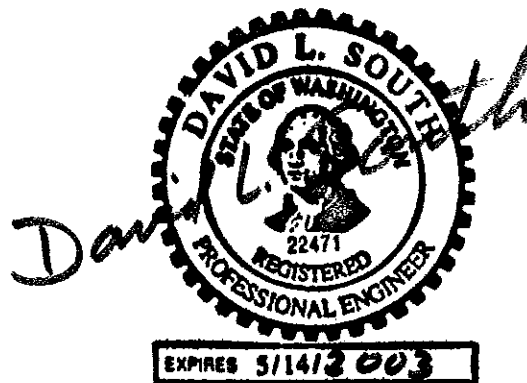
**Professional Engineer's Statement  
Everett Smelter Cleanup, 2000-2001**

Sampling and soil remediation were carried out at the following homes within the Everett Smelter Site during the years 2000 and 2001:

<u>Address</u>	<u>Owner</u>
Muriel Jones	110 Bridgeway
Andrew Michels	235 Bridgeway
Jeanette Mempa	236 Bridgeway
Thomas, Christine & Ronnie	240 Bridgeway
Martha Watkins	244 Bridgeway
Joanne Felmer	2803 Medora Way
Terry Tavares & Linda Guy-Tavares	2811 Medora Way
Duane & Edna Rapelje	2817 Medora Way
Dave & Rene Goodrich	2818 Medora Way
Ron & Bonnie Sylvester	2830 Medora Way
Anh Black	528 Hawthorne
Steve & Sherrie Wamba	415 Legion Drive
Gary & Darlene Bunger & Sandra Kane	112 Skyline Drive
Michael Paeth	116 Skyline Drive
Randy Hall	212 Skyline Drive
Willy Pompey	215 Skyline Drive
Dorothy Larson	218 Skyline Drive
Bob & Peggy Redline	221 Skyline Drive
Michael & Sheila Crehan	222 Skyline Drive
Kurt Bertilson	230 Skyline Drive
Louise Hiller	302 Skyline Drive
Margie Hogle	303 Skyline Drive
Fred Brown	307 Skyline Drive
Jackie Robinett	308 Skyline Drive
Al Vandebosch	316 Skyline Drive
Al Sorenson	320 Skyline Drive
Jo Newland	323 Skyline Drive
John & Christina Bull	328 Skyline Drive

Based on the results of testing and inspections, it is my opinion that the soil remediation carried out at these homes was performed in substantial compliance with the plans, specifications, and related documents governing the work.

Remediation work remaining to be done at these homes includes evaluation of crawl space data and addressing crawl spaces as necessary and carpet and duct cleaning. Some plant replacement also remains to be done and will be done this Spring.



# Washington Department of Ecology Everett Smelter Site 2001 Cleanup

## Details of Cleanup Activities

The Department of Ecology (Ecology) targeted the yards of 28 homes within the Everett Smelter Site for cleanup in 2000 and 2001. Cleanup activities were conducted between August 2000 and March 2001, and again between July and November, 2001. The cleanup was conducted according to the *Everett Smelter Site: Integrated Final Cleanup Action Plan and Final Environmental Impact Statement for the Upland Area*.

This report describes the cleanup actions that were conducted, what arsenic-contaminated soil was not removed and where it remains for the following location:

Property Owner      Joanne Felmer

Address:              2803 Medora Way  
Everett, WA 98201

Snohomish County  
State of Washington  
Tax Parcel No.      # 005203-000-025-00

This property was divided by Ecology into three Decision Units, A, B and C, as shown on the attached map, for purposes of pre-cleanup sampling and decision-making regarding the depth to which excavation was required. The following is a summary of the work done in the remediation of the property within each of the decision units.

### Decision Unit: A

Results of pre-cleanup sampling indicated 18 inches of soil were to be excavated from within this decision unit. Attachment B shows that below 18 inches, results of composite sample analyses are below the remediation level of 60 parts per million (ppm) and discrete sample analyses are below the remediation level of 150 ppm. However, because the soil below 18 inches contains arsenic levels above the cleanup level of 20 ppm, a geofabric marker was placed.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 18 inches. Along the sides of the existing home, the walkway from Medora



Way to the front door, along the paved driveway, the excavation was sloped approximately 1:1 away from the foundations to protect the integrity of the structures. At the owners' request, the maple trees at the southeast and southwest corners of the house and the evergreen tree in the planting bed in the south western lawn, between sample locations L-1 and L-2, were not removed. Within the dripline of the trees only the existing sod was removed; beyond the dripline, 18 inches were excavated. A Keystone block wall running east along the property line shared with 221 Skyline Drive, extending through Decision Units B and C was constructed to allow removal of contaminated soils in the slope separating the two properties and to preserve the original grade and driveway at 2803 Medora Way. Downspouts from the roof drains were connected to PVC pipes which end in a below grade drainage structure, composed of gravel and geofabric, located east of the concrete retaining wall separating Decision Units B and C. A small catch basin was installed near the telephone pole at the top of the slope and adjacent to the driveway for 2811 Medora Way. The catch basin drains to gravel enclosed in geofabric near the toe of the slope and adjacent to the chain-link fence. After placing a geofabric marker, the Decision Unit was backfilled with clean material, as described in the *Specifications for Everett Residential Soil Remediation*. After placing the topsoil, sod and shrubs were planted.

#### Decision Unit: B

Results of pre-cleanup sampling indicated 24 inches of soil were to be excavated from within this decision unit. Attachment B shows that below 24 inches, results of composite sample analyses are below the remediation level of 150 ppm and discrete sample analyses are below the remediation level of 500 ppm. However, because the soil below 24 inches contains arsenic levels above the cleanup level of 20 ppm, a geofabric marker was placed.

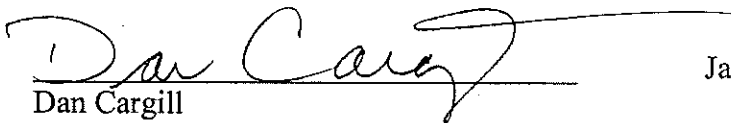
Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 24 inches. All plants and planting beds were removed. Along the sides of the concrete retaining wall separating Decision Units B and C, the excavation was sloped approximately 1:1 away from the foundation to protect the integrity of the structure. The rock wall along the north property line was removed and replaced with a keystone block wall to allow restoration to the original grade. A rockery wall was placed at the toe of the slope in the south east portion of the yard to prevent sloughing of the backfilled material. After placing a geofabric marker, the Decision Unit was backfilled with clean material, as described in the *Specifications for Everett Residential Soil Remediation*. After placing the topsoil, sod and groundcover were planted. Jute netting was placed over the topsoil on the slope to prevent erosion.

#### Decision Unit: C

Results of pre-cleanup sampling indicated 12 inches of soil were to be excavated from within this decision unit. Attachment B shows that below 12 inches, results of composite sample analyses are below the remediation level of 60 ppm and discrete sample analyses are below the remediation level of 150 ppm. However, because the soil below 12 inches contains arsenic levels above the cleanup level of 20 ppm, a geofabric marker was placed.



Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 12 inches. The area behind the block wall running along the property line with 221 Skyline Drive was excavated to the level of 221 Skyline Drive's yard. A geofabric marker was placed along the face of the excavation prior to backfilling with a geogrid and washed gravel. After placing a geofabric marker, the Decision Unit was backfilled with clean material, as described in the *Specifications for Everett Residential Soil Remediation*. After placing the topsoil, sod and shrubs were planted.

  
Dan Cargill  
Washington Department of Ecology

January 9, 2002

DRC:dc

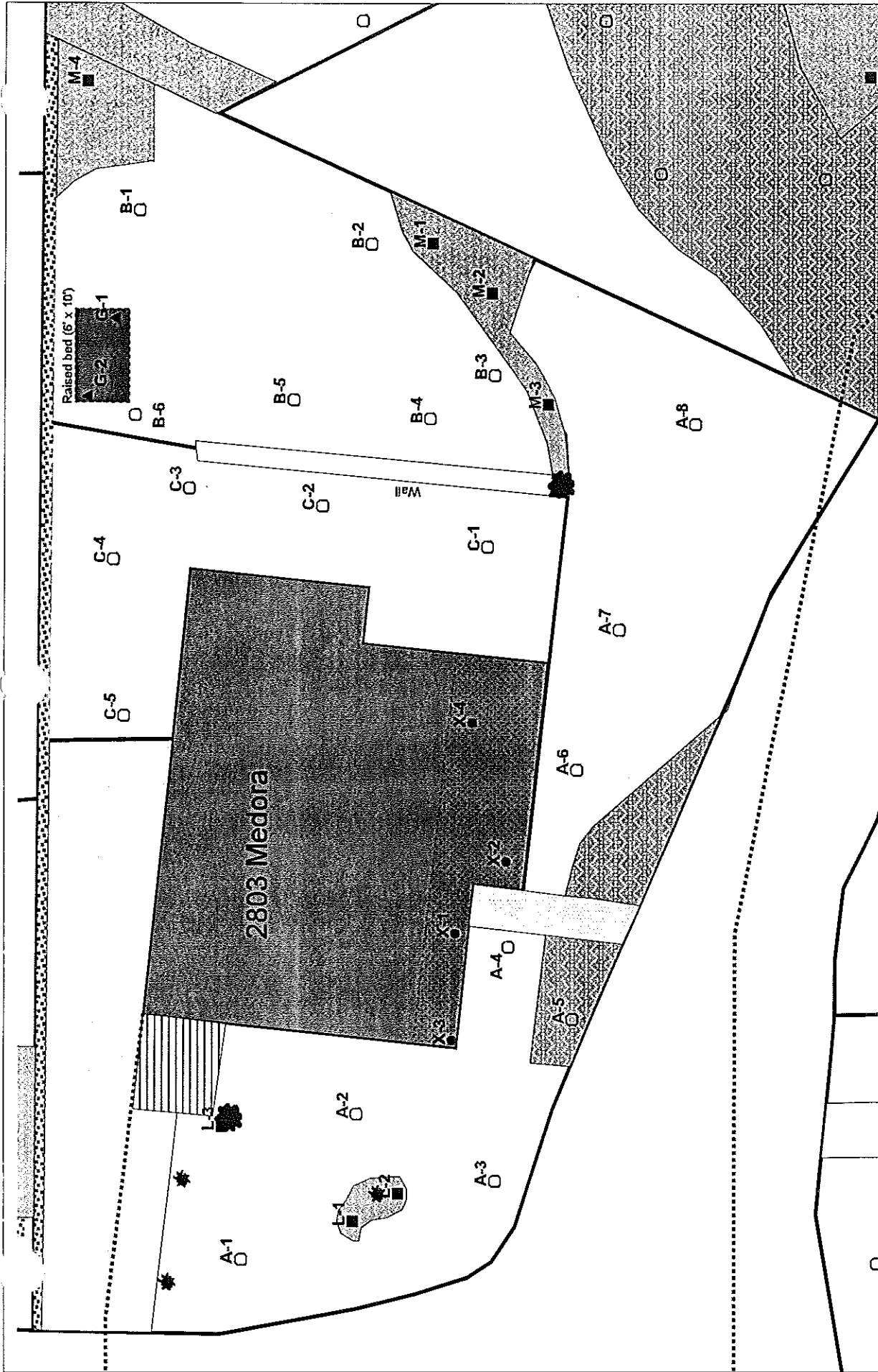
Attachments: A. Site Map  
B. Graphs of Arsenic Concentration vs. Depth  
C. Explanation of graphs

Note: If the attachments listed above do not accompany this document, copies may be obtained from Ecology. Please contact Central Records at Ecology's Northwest Regional Office (NWRO), at (425) 649-7190 for information on obtaining copies.

cc: Ecology Central Files, NWRO  
Office of the Attorney General  
Snohomish Health District  
City of Everett Public Works  
Everett Public Library  
Snohomish PUD  
Northeast Everett Community Organization  
Northwest Everett Neighborhood Association  
Asarco Information Center, Everett







# 2803 Medora

## Everett Smelter Homesite Cleanup

Source: Snohomish Health District



Not to scale

- ▲ Garden Samples
- Crawlspace Samples
- Landscape Samples
- DU Samples



